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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/607,778

06/27/2003

Zi-Ming He

6455

25859

7590

09/09/2004

WEI TE CHUNG
FOXCONN INTERNATIONAL, INC.
1650 MEMOREX DRIVE
SANTA CLARA, CA 95050

EXAMINER

CAO, HUEDUNG X

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/607,778

Applicant(s)

HE ET AL.

Examiner

Huedung X Cao

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dai et al. (USP 6734826 B1).

With respect to claim 1, Dai teaches a multi-band antenna comprising: an insulative substrate (figure 1, insulative substrate 30) comprising a major surface (figure 1); a conductive element formed on the major surface of the insulative substrate (figure 1, radiating portion 21), the conductive element comprising a first part resonating at a first frequency band and a second part resonating at a second frequency band (column 1, lines 25-44); and a coaxial cable comprising an inner conductor and an outer conductor, the inner conductor electrically connecting with the first part of the conductive element and the outer conductor electrically connecting with the second part of the conductive element (figure 1, inner conductive element 42 and outer conductive element 41). It is noted that Dai does not explicitly disclosed "the non conductive gap" as claimed. However, in Dai's figure 1, the portion in between the radiating portion 21 and the insulative substrate is analogous to Applicant's non conductive gap. It would have been

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obvious to one of ordinary skill in the art at the time the invention was made to have a gap in between the conductive elements in order to have different frequency bands for the antenna.

Claim 2 adds into claim 1, wherein the non conductive gap comprises a first branch and a second branch substantially perpendicular to the first branch, the first and the second branches separating the first part from the second part (figure 1).

Claim 3 adds into claim 2, wherein the first branch comprises an open end arranged on a borderline of the conductive element, and electrical connections between the coaxial cable and the conductive element are adjacent to the open end of the first branch (figure 1).

Claim 4 adds into claim 2, wherein the non-conductive gap comprises a third branch extending from a junction of the first and the second branches into the second part of the conductive element (figure 1).

Claim 5 adds into claim 1, *wherein the first part is substantially rectangular* and the second part surrounds two sides of the first part (figure 1).

Claims 6-13 are similar to claims 1-5 except for the step of a feed line comprising a first portion and a second portion, the first portion electrically connecting the first conductive patch, the second portion electrically connecting the second conductive patch; wherein when the first conductive patch operates in the first frequency band, the second conductive patch functions as a grounding portion for the first conductive patch; and when the second conductive patch

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operates in the second frequency band, the first conductive patch functions as a grounding portion for the second conductive patch (column 2, lines 51-67).

Claims 14-16 are similar in scope to claim 1 except for a rectangular insulative substrate defining a lengthwise edge of a lateral edge which Dai teaches in column 4, lines 10-24)

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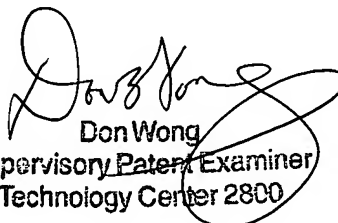
Inquires

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huedung Cao whose telephone number is (571) 272-1939.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

4. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Huedung Cao
Patent Examiner
September 7th, 2004


Don Wong
Supervisory Patent Examiner
Technology Center 2800